

Frequent Isolation of Fluoroquinolone-Resistant *Campylobacter* from Ill Humans and Chickens in Grocery Stores in the United States

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Objective: *Campylobacter* is the most common bacterial cause of foodborne illness in the United States, infecting an estimated 2.4 million people annually. Fluoroquinolones (e.g. ciprofloxacin) reduce the severity of symptoms in persons with a *Campylobacter* infection, and are the drug-of-choice for the treatment of acute gastroenteritis in adults. Fluoroquinolones (enrofloxacin and sarafloxacin) are also used in chickens for the treatment of colibacillosis.

Procedure: In 1998, public health laboratories in seven states forwarded one *Campylobacter* isolate per week to CDC. From July 1998 - June 1999, four states also forwarded on *Campylobacter* isolated from chickens purchased from grocery stores. Isolates were identified as *C. jejuni* using dark-field microscopy, oxidase positivity, hippurate hydrolysis, and polymerase chain reaction. E-test was used for ciprofloxacin susceptibility testing.

Results: In 1998, 44 (13.3%) of 332 human *Campylobacter* isolates were fluoroquinolone resistant; approximately half of these infections were acquired by people who had not recently traveled outside the United States and not previously taken fluoroquinolones. In 1998-1999, *Campylobacter* was isolated from 80 (44%) of 180 chickens; 19 (24%) of the chicken *Campylobacter* isolates were fluoroquinolone-resistant. Therefore, fluoroquinolone-resistant *Campylobacter* was isolated from 11% of chickens purchased from grocery stores in the United States.

Conclusions: These and other data demonstrate that fluoroquinolone use in chickens has resulted in dissemination of fluoroquinolone-resistant *Campylobacter* in chickens, which is being transmitted to humans through the food supply. Therefore, use of fluoroquinolones in chickens is compromising the use of fluoroquinolones for the treatment of *Campylobacter* infections in humans.

Suggested citation:

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